

South Carolina Regional Transmission Planning

Stakeholder Meeting

Teams

February 23, 2022

Purpose and Goals for Today's Meeting

- Review and Discuss Key Assumptions and Data for the Next Planning Cycle
- Review and Discuss Major Transmission Expansion Plans
- Review Schedule for completing Transmission Planning Studies

Key Assumptions and Data for the Next Planning Cycle

DESC – Scott Parker

Modeling Assumptions and Data

Dispersed Substation Load Forecast

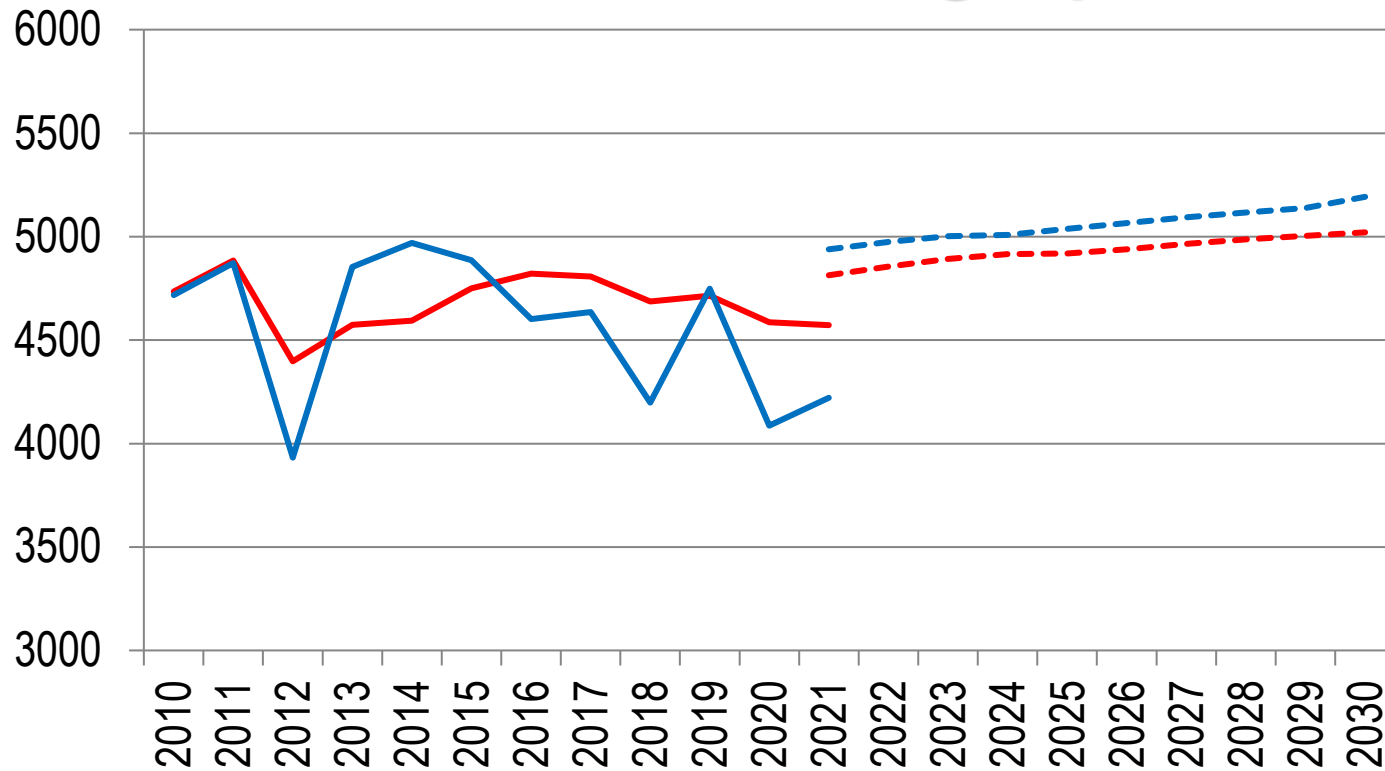
- Summer/Winter Peak, Off-Peak and Seasonal Load Levels
- Resource Planning provides 10 Year system load forecasts
- Transmission Planning creates dispersed substation load forecasts

Load Forecast Process

Resource Planning Input

- Develop 10 year projected forecast based on:
 - 10 year historical load summer and winter loads
 - Load factors by customer class
 - Considers weather, personal income, population growth, economic conditions, load management, energy efficiency, etc
 - Applies regression analysis to historical data to develop models
 - Applies forecasted growth rates to develop future projections

Load Forecast Resource Planning Input



— Historical Summer Peak
 — Historical Winter Peak
 - - - Projected Summer Peak
 - - - Projected Winter Peak



Load Forecast Process

Transmission Planning Input

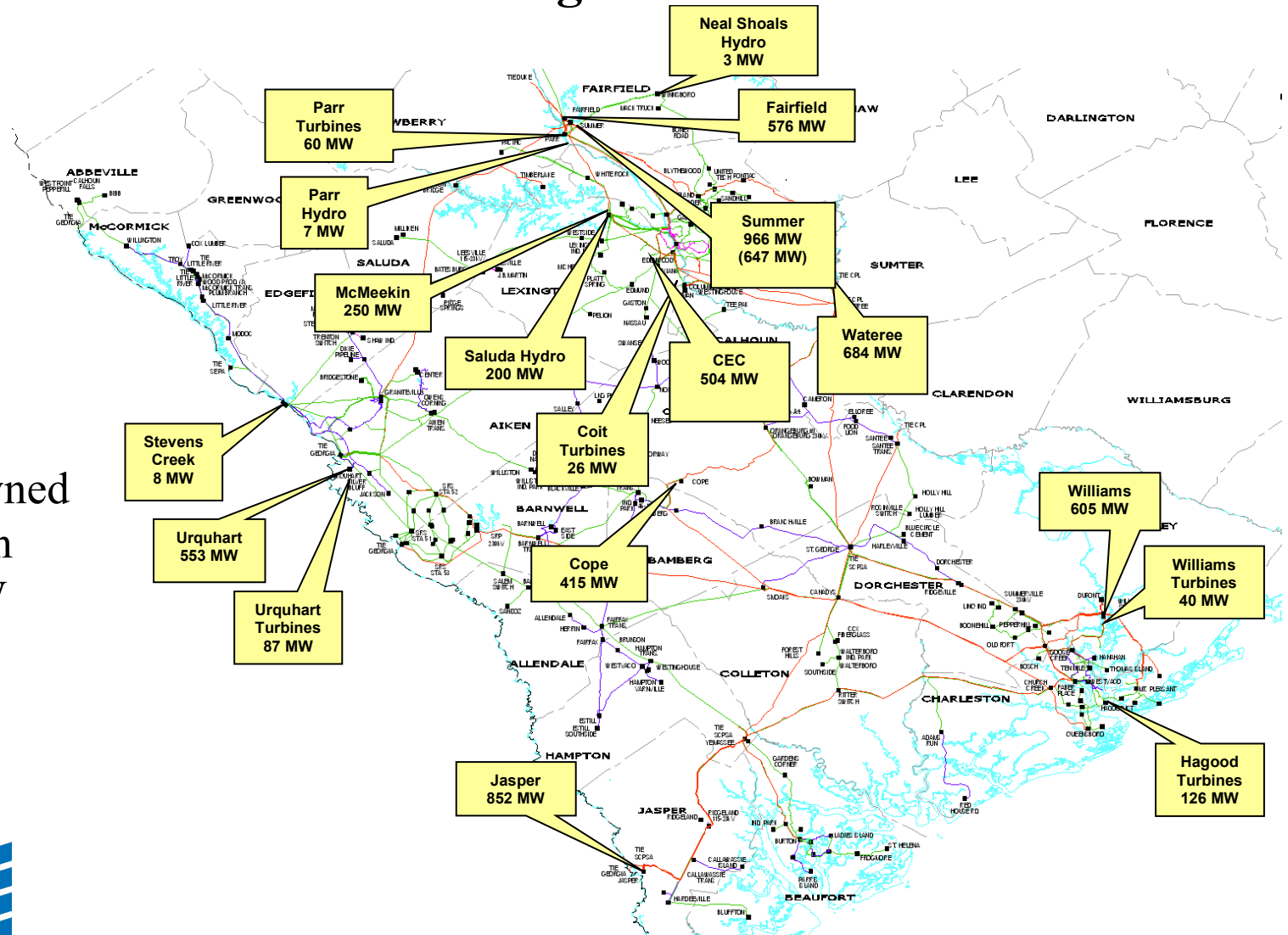
- Obtain summer and winter snapshot meter data from most recent seasons and adjust for load switching
- Develop 10 year projected forecast based on:
 - 10 year historical loading
 - Feedback from Distribution Planning, Local Managers, Large Industrial Group and Transmission Services Manager
- Wholesale loads are modeled as provided by the customer
- Dispersed forecasted load points are integrated into Corporate forecasted load

Modeling Assumptions and Data

Generation

- Annual generator ratings used
- Input from Generation Expansion Plan – Reductions/Additions
- Input from Generation Maintenance Schedule
- Generators dispatched economically
- Merchant Generators included, modeled at contracted output

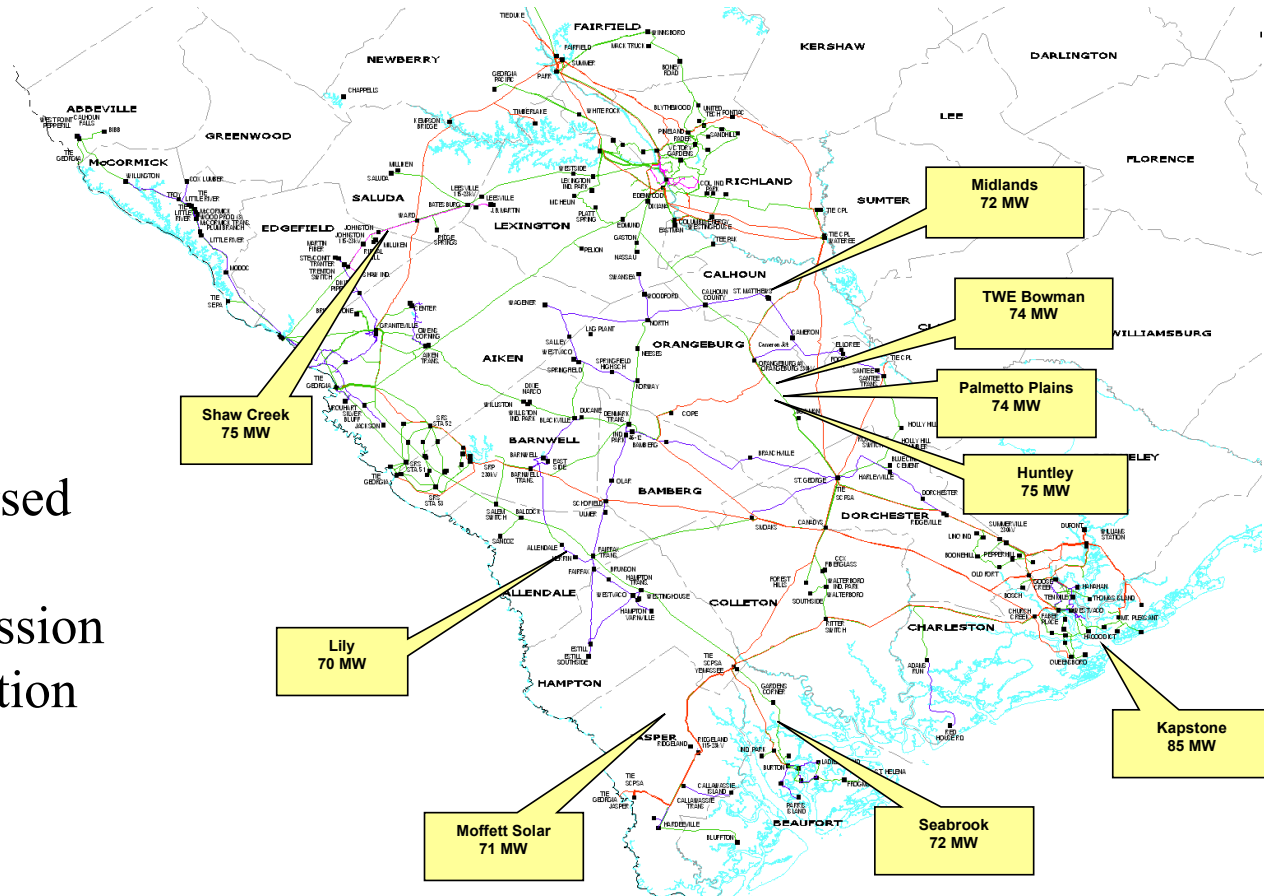
Existing Generation



DESC Owned
Generation
5,657 MW



Merchant Generation



Additional Dispersed
Solar Generation
706 MW Transmission
193 MW Distribution

Future Generation Additions

2022



Dispersed Solar
562 MW Transmission
0 MW Distribution

Modeling Assumptions and Data

Transmission Network

- Input from Transmission Plan
- Neighboring Transmission Systems Modeled

Modeling Assumptions and Data Planned Transmission Facilities

Dominion Energy South Carolina Planned Transmission Facilities	
Planned Project	Tentative Completion Date
Williams Street – Park Street 115 kV: Construct	Feb-22
Lake Murray – Harbison 115 kV: Re-terminate Saluda Hydro – Harbison and rebuild SPDC	Feb-22
Cainhoy – Mt. Pleasant 115kV #1 and #2 (Horbek Creek Crossing)	Feb-22
Queensboro – Johns Island 115 kV Tie: Rebuild River and Marsh Crossing	Jun-22
Edenwood Sub: Replace Switch house	Jun-22
Graniteville #2-Toolebeck 115kV: Upgrade to 1272	Jun-22
Bluffton – Santee 115 kV Tie Line Construct	Dec-22
Queensboro - Ft Johnson 115 kV & Queensboro-Bayfront 115kV (Queensboro-James Island Sect)	Dec-22
Lake Murray - Gilbert 115 kV Line	Dec-22
Burton-Yemassee 115 kV #2 Line Rebuild as Double Circuit	Dec-22
Ward- Stevens Creek 115 kV -Ward – Trenton Section Rebuild	Dec-22
Church Creek-Queensboro 115kV: Stono River Crossing	Dec-22
Denny Terrace–Crafts Farrow & Denny Terrace–Dentsville Line #1 115kV Rebuild	Dec-22
Eastover - Square D 115kV: Rebuild	Dec-22
Calhoun County-St. Matthews 46kV: Rebuild	Dec-22
North-Wagener Jct 46kV: Rebuild North-LNG Tap Section	Dec-22
Wagener Jct – Springfield City 46 kV Rebuild	Dec-22
Wateree – Orangeburg 230 kV Line: I-26 Rebuild	Dec-22
Church Creek – Ritter 230 kV Maintenance Replacements	Dec-22
Lakeside 230-115kV Substation, Jasper – Yemassee 230kV #1 Fold-in and Lakeside – Okatie 115 kV line construct	Jun-23
Denny Terrace Sub: Replace Switch house	Jun-23
Wateree-Hopkins 230kV Line #2: Rebuild	Dec-23
Burton-St Helena 115kV: Rebuild Burton-Frogmore Transmission Section	Dec-23
Burton-St Helena 115kV: Frogmore Distribution - St Helena	Dec-23
VCS1-Denny Terrace 230kV & VCS1-Pineland 230kV: Rebuild Double Circuit Section and Single Circuit Sections	Dec-23
Wateree-Hopkins 230kV Line #1: Rebuild	Dec-23
Okatie-Bluffton 115kV: Rebuild	Dec-23
Square D - Hopkins 115kV: Rebuild	Dec-23
Goose Creek Reservoir 230/115 kV Rebuild	Dec-23
Cainhoy - Hamlin 115kV: Rebuild Line and Cainhoy – Hamlin 115 kV #2: Construct New 115 kV Line	Dec-24
Union Pier 115-13.8 kV Sub: Tap	Dec-24
Hopkins-CIP 230kV: Rebuild	Dec-24
Faber Place-Bayfront 115kV: Rebuild North Bridge Terrace to Bayfront Section	Dec-24
Edenwood Sub: #1 & #2 230-115kV Autobanks, Replace with 336MVA	Dec-24
Okatie-Riverport 115kV Construct	Dec-24
Stevens Creek – Clarks Hill 115/46 kV Rebuild	Dec-24
Jasper – Okatie 230 kV #2: Construct	Dec-24
Summerville 115 kV Loop Rebuild	Dec-24
Wateree-Killian 230kV: Rebuild	Dec-25
Canadys – Ritter 115kV: Rebuild as 230/115kV Double Circuit	Jun-26
Lakeside 230–115kV Sub and the Jasper – Yemassee Fold In	Dec-26
Ritter – Yemassee 230kV and 115kV Transmission System Expansion	Jun-27
Clements Ferry 115–23kV Sub: Construct; Jack Primus–Cainhoy 115kV with Clements Ferry Tap Construct	Dec-27



Modeling Assumptions and Data

System Interchange

- Firm scheduled transfers included
- Coordinated with Neighbors

Santee Cooper Transmission Planning Models Key Assumptions and Data

Weijian Cong

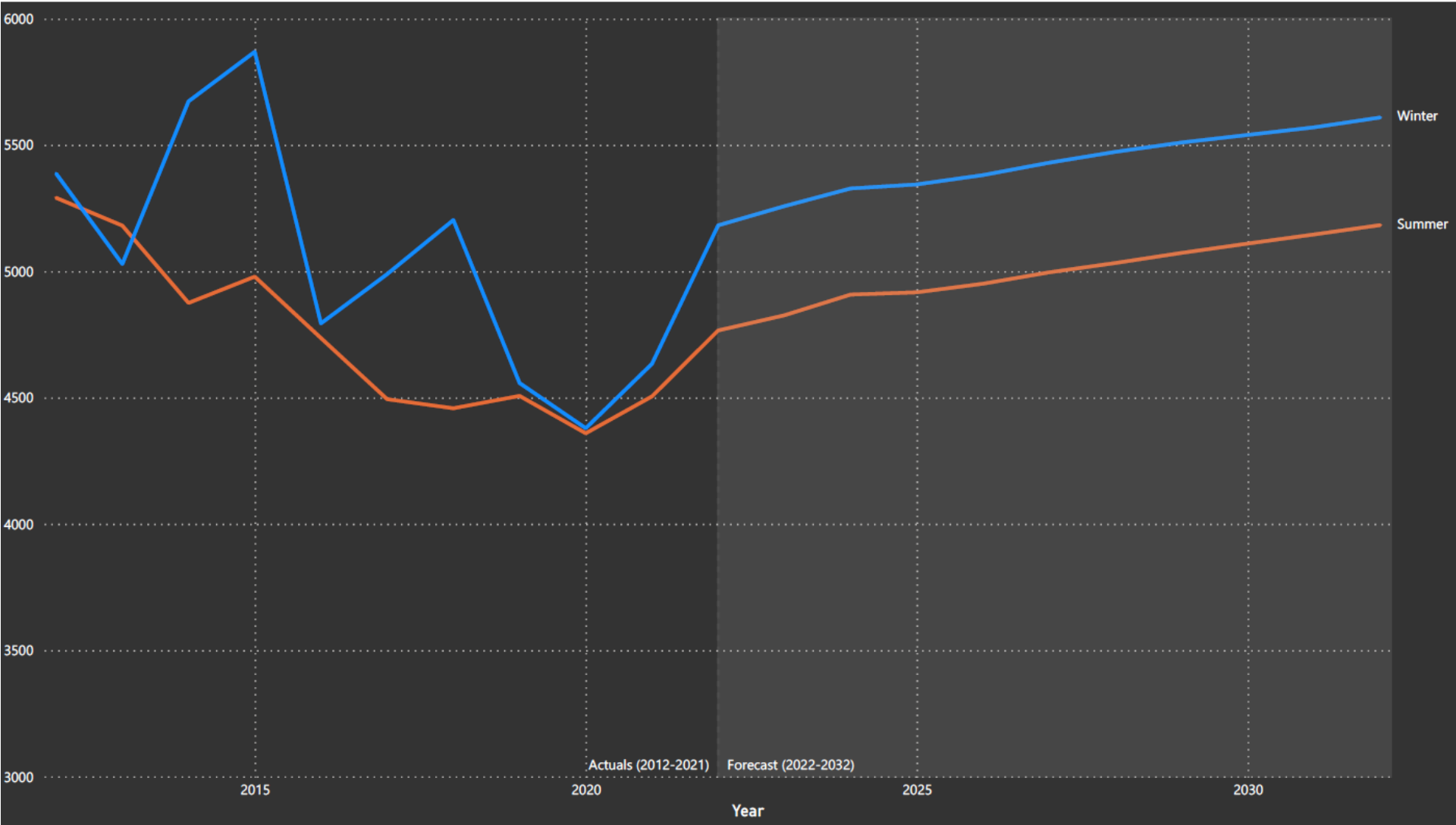
Major Model Components

- Load Demand Forecast
- Transmission Network
- Generation Resources
- Actual System Operations

Load Demand Forecast

- 10-year projected demand forecast
 - Wholesale customers load forecast
 - Industrial and municipality customer contracts
 - Santee Cooper Distribution load forecast & grow rates
 - Transmission Planning produces dispersed substation load based on power factors derived from most recent meter data
- System Peak and off-peak load conditions

Santee Cooper 10-Year Actual & Load Forecast



Transmission Network

Models include:

- Existing transmission system and committed projects
- Neighboring transmission system representations
- All facilities assumed to be available unless notified otherwise
- Normal operating status (in-service or out-of-service) of facilities is represented

Transmission Network

- Uniform rating methodology is applied to transmission facilities
- Base case models are updated annually prior to annual transmission assessment
- Study models may be updated as needed prior to any study
- Neighboring and Regional system network from the latest MMWG models are used

Committed Transmission Facilities

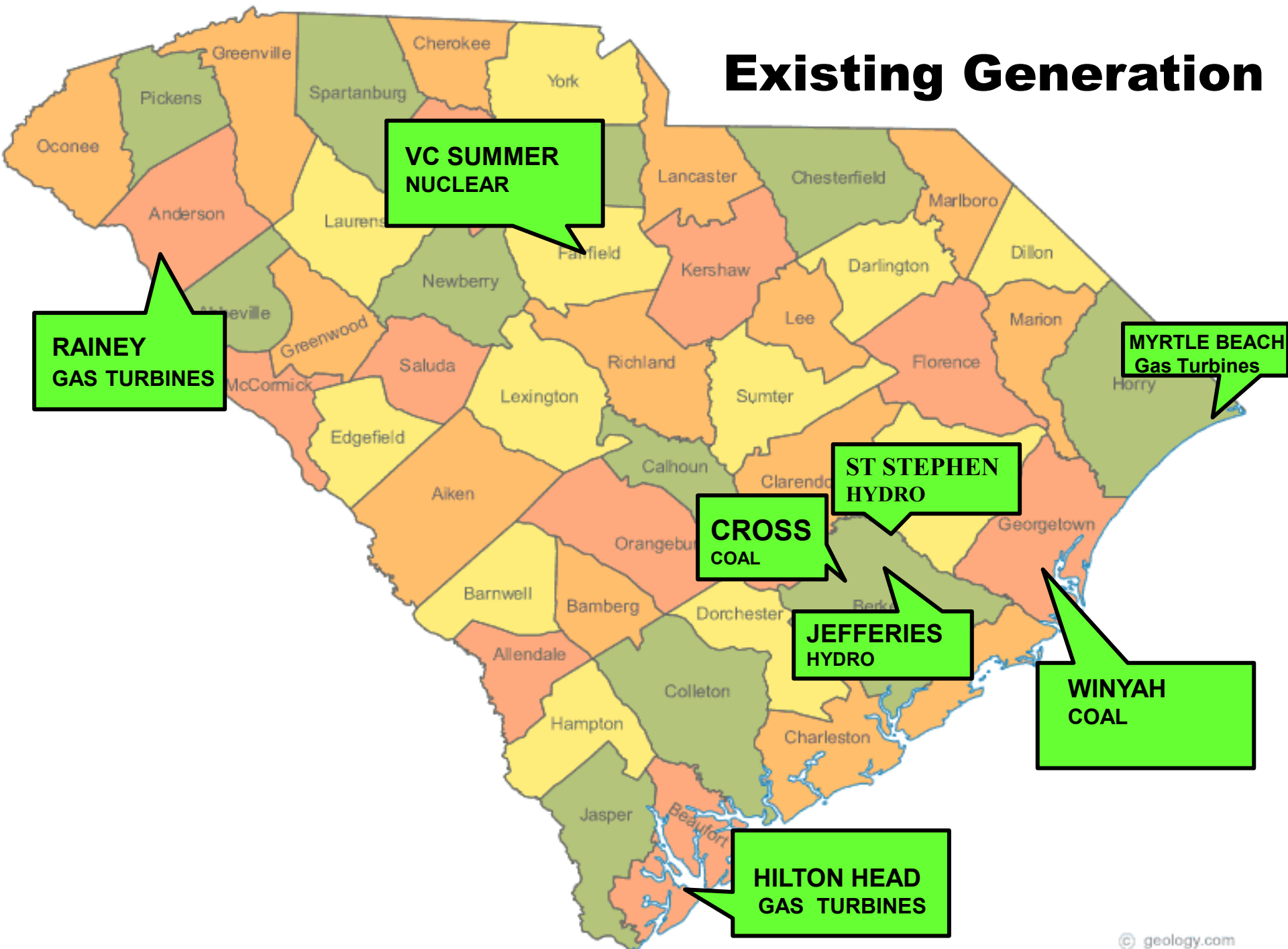
Project Title	In-service Date
JW Aluminum Phase II: Rebuild N. Charleston-Goose Creek 115 kV Line Section	03/31/2022
Red Hill 115 kV Delivery Point	06/01/2022
Aiken 230-115 kV Transformer #2 Addition	11/01/2022
Yemassee 230 kV Station Improvements	12/01/2022
Mateeaba 230 kV Station Improvements	12/01/2022
Tillman 115 kV Delivery Point	12/01/2022
Johns Island – Queensboro (DESC) 115 kV Line	12/31/2022
Camp Hall North Loop 115 kV Line	03/31/2023
Wassamassaw 230-115 kV Substation	12/01/2023
Wassamassaw-Pringletown #2 115 kV Line	12/01/2023
Conway 230 kV Switching Station	09/01/2024
Marion-Conway 230 kV Line	09/01/2024

Generation Resources

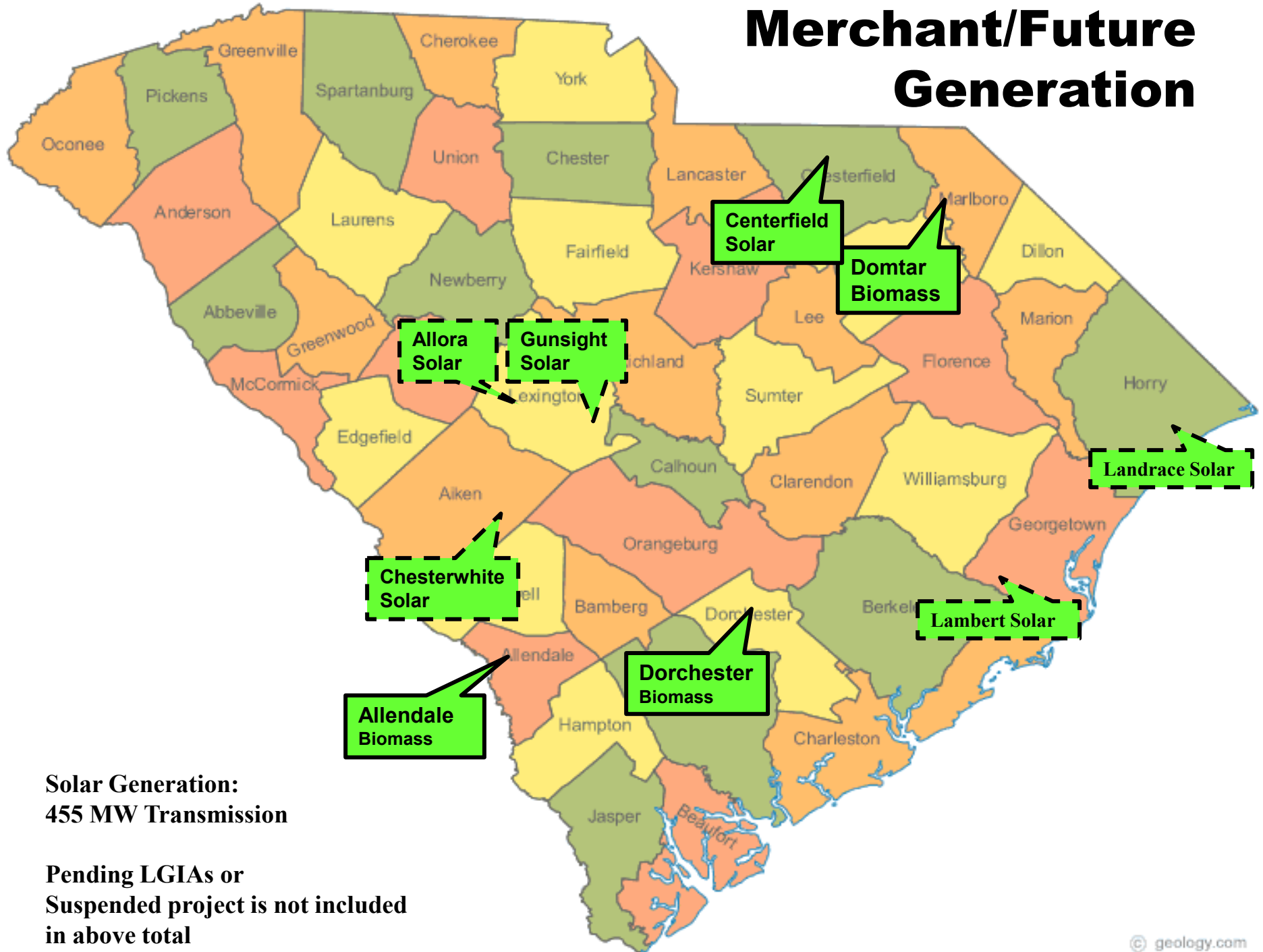
Existing/Committed Connected Generation

Cross Units 1- 4	J.S. Rainey Combined Cycle PB1
Winyah Units 1-4 (retire end of 2028)	J.S. Rainey 2A, 2B CTs
Hilton Head Turbines 1-3	J.S. Rainey 3-5 CTs
Myrtle Beach Turbines 1-5	Spillway Hydro
Jefferies Hydro 1, 2, 3, 4, 6	St. Stephen Hydro 1-3
Allendale (Merchant)	V.C. Summer #1 (shared output with DESC)
Dorchester (Merchant)	Domtar (Merchant)
Centerfield Solar (Merchant)	Gunsight Solar (Merchant COD 2022)
Allora Solar (Merchant COD 2023)	Landrace Solar (Merchant COD 2022)
Chesterwhite Solar (Merchant COD 2023)	Lambert I Solar (Merchant COD 2023)

Existing Generation



Merchant/Future Generation



Solar Generation:
455 MW Transmission

**Pending LGIAs or
Suspended project is not included
in above total**

Resources Assumptions and Data

- Generation data is verified with Generation Department
- Seasonal models account for unit maintenance outages, known at the time, based on planned maintenance schedules
- Confirmed firm transmission service reservations
- SEPA allocations and other contracted purchases

Economic dispatch order is used for generator dispatch in base cases

Santee Cooper Planning Models

Data and Assumptions

Questions?

Current DESC Transmission Expansion Plans

Edward Chapman

Disclaimer

- The projects described in these presentations represent the current transmission plans within the SCRTP footprint.
- The expansion plan is continuously reviewed and may change due to changes in key data and assumptions.
- This presentation does not represent a commitment to build.

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Welcome to the Dominion Energy South Carolina OASIS

SCE&G is now Dominion Energy South Carolina

For transaction purposes, we will continue to use the "SCEG" company code for transmission reservations and tags.

News and Announcements

Hourly and Daily PTP Service Discounted.

The offer price for Hourly and Daily PTP service has been discounted effective March 1st, 2019.

[Informational Postings](#)

Notice: This document was last updated January 06, 2020.

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DESC Planned Transmission Facilities

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DESC 2022 Planned Transmission Facilities

Williams Street – Park Street 115kV: Construct

Project Description

Design and install a 115kV line between Williams Street and Park Street substations.

Project Need

System load growth in the downtown Columbia area requires additional transmission capacity.

Project Status

In Progress

Planned In-Service Date

February 2022

Lake Murray – Harbison 115kV: Re-terminate Saluda Hydro – Harbison and rebuild SPDC

Project Description

Re-terminate the Saluda Hydro – Harbison 115kV line to Lake Murray substation in preparation for the SPDC rebuild of the Lake Murray – Harbison 115kV which will add an additional line to create Saluda Hydro – Denny Terrace 115kV line.

Project Need

System growth in the Irmo, Harbison, Piney Woods Road, and Kingswood areas requires additional 115kV capacity and transmission path to increase reliability.

Project Status

In Progress

Planned In-Service Date

February 2022

Cainhoy – Mt. Pleasant 115kV #1 and #2 (Horlbeck Creek Crossing)

Project Description

Replace the wooden H-frame structures of the Horlbeck Creek crossing section of the Cainhoy – Mt. Pleasant 115kV #1 and #2 line with Self Supporting Steel Structures. In addition, the existing 795 ACSR conductor on line #1 will be replaced with 1272 ACSR.

Project Need

The structures are at the end of their useable life.

Project Status

In Progress

Planned In-Service Date

February 2022

Graniteville #2 – Toolebeck 115kV: Upgrade to 1272

Project Description

Upgrade the 115kV line portions between Aiken Transmission and Toolebeck, and Graniteville #2 and Aiken #3 on the Graniteville #2 – Toolebeck 115kV line. The line will be single circuit with 1272 ACSR.

Project Need

This project is required for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

June 2022

Bluffton – Santee 115kV Tie Line Construct

Project Description

Construct a new 115kV tie line from DESC Bluffton substation to SCPSA Bluffton substation. Total line length will be approximately 1.5 miles.

Project Need

This line is needed to reduce outage durations for planned outages and emergency situations for DESC's Bluffton, Hardeeville and Pritchardville substations.

Project Status

Planned

Planned In-Service Date

December 2022

Lake Murray – Gilbert 115kV Line

(Stevens Creek-Ward-Lake Murray Line Projects)

Project Description

Rebuilding between Lexington Junction and Lexington Transmission including the addition of a third circuit. Rebuilding between Lexington Transmission and Lexington Westside, line will be SPDC with 1272 ACSR on both sides.

Project Need

This project is required for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

December 2022

Burton-Yemassee 115kV #2 Line Rebuild SPDC B795 ACSR

Project Description

Burton-Yemassee 115kV Line #2: Rebuild 115kV SPDC using B795 ACSR (line length 21.24 miles).

Project Need

System load growth in the Burton area requires additional transmission capacity from the Yemassee 230/115kV substation and added transmission path to increase reliability.

Project Status

In Progress

Planned In-Service Date

December 2022

Trenton –Briggs Road Tap (Ward – Stevens Creek 115kV)

(Stevens Creek-Ward-Lake Murray Line Projects)

Project Description

Rebuilding between Trenton and the Briggs Rd Tap, line will be single circuit with 1272 ACSR.

Project Need

This project is required for system reliability and maintainability.

Project Status

In Progress

Planned In-Service Date

December 2022

Denny Terrace – Crafts Farrow & Denny Terrace – Dentsville Line #1 115kV Rebuild

Project Description

Replace the old wooden double circuit structures on the Denny Terrace – Crafts Farrow 115kV and Denny Terrace – Dentsville 115kV Line #1 between Denny Terrace Substation and structure 59. In addition, the existing 477 ACSR and 795 ACSR conductor will be replaced and upgraded to 1272 ACSR.

Project Need

The structures are at the end of their useable life.

Project Status

Planned

Planned In-Service Date

December 2022

Eastover – Square D 115kV: Rebuild

Project Description

Replace the Eastover – Square D 115kV structures and line.

Project Need

The existing wooden structures and 477 ACSR conductor on the 16.1 mile-long Eastover – Square D 115kV Line have reached the end of useable life. In addition to changing out the wooden structures with Self Supporting Steel Poles, the conductor will be replaced with 1272 ACSR conductor.

Project Status

Planned

Planned In-Service Date

December 2022

Calhoun County – St. Matthews 46kV: Rebuild

Project Description

Rebuild the Calhoun County - St. Matthews 46kV framed at 115kV. (Approx. 10 miles)

Project Need

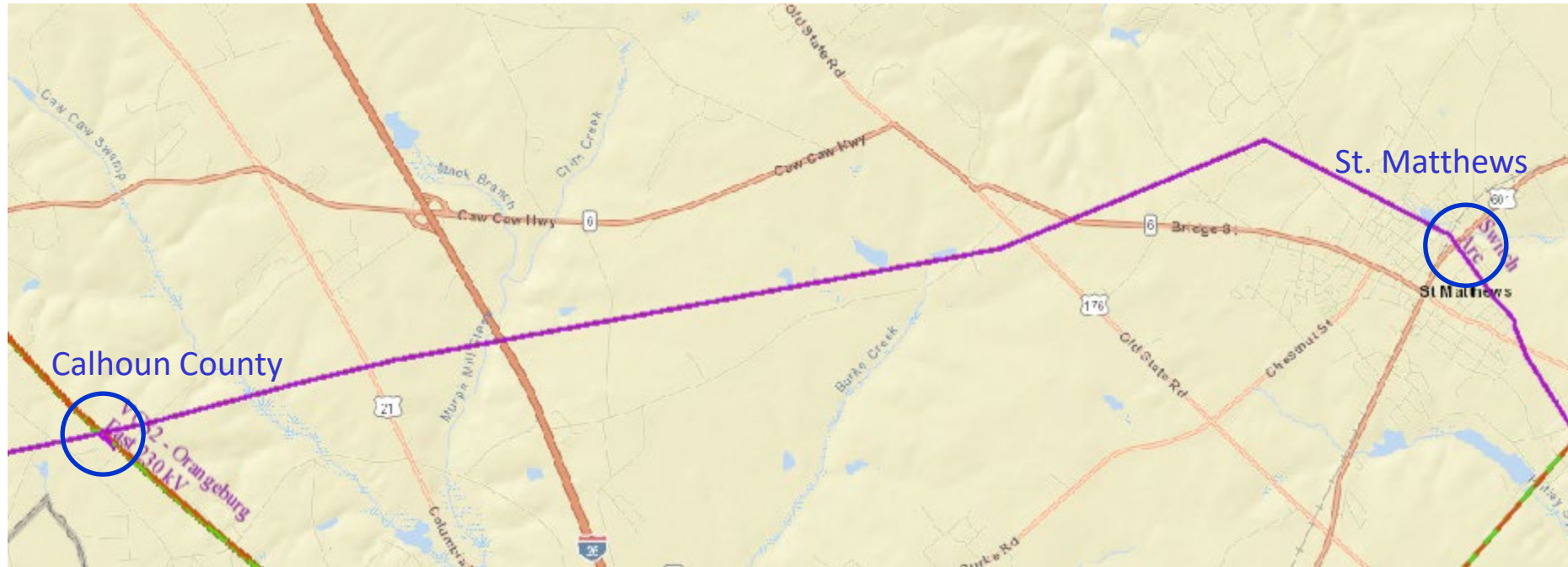
The Calhoun County – St. Matthews 46kV Line was built back in the early 1970s and has reached the end of its usable life. Additionally, the line was built using T-1 type structures which has been found to be a highly susceptible to operations due to crossarm failures. Rebuilding with self supporting galvanized steel poles will greatly increase the reliability of this line.

Project Status

Planned

Planned In-Service Date

December 2022



North – Wagener Jct 46kV: Rebuild North – LNG Tap Section

Project Description

Rebuilding the existing North - LNG Tap Section of the North - Wagener Jct 46kV Line. Line will be rebuilt SPSC with 1272 ACSR and 115kV Insulation (line will continue to operate at 46kV). Phase 2 of this project will be done on Project 6809B.

Project Need

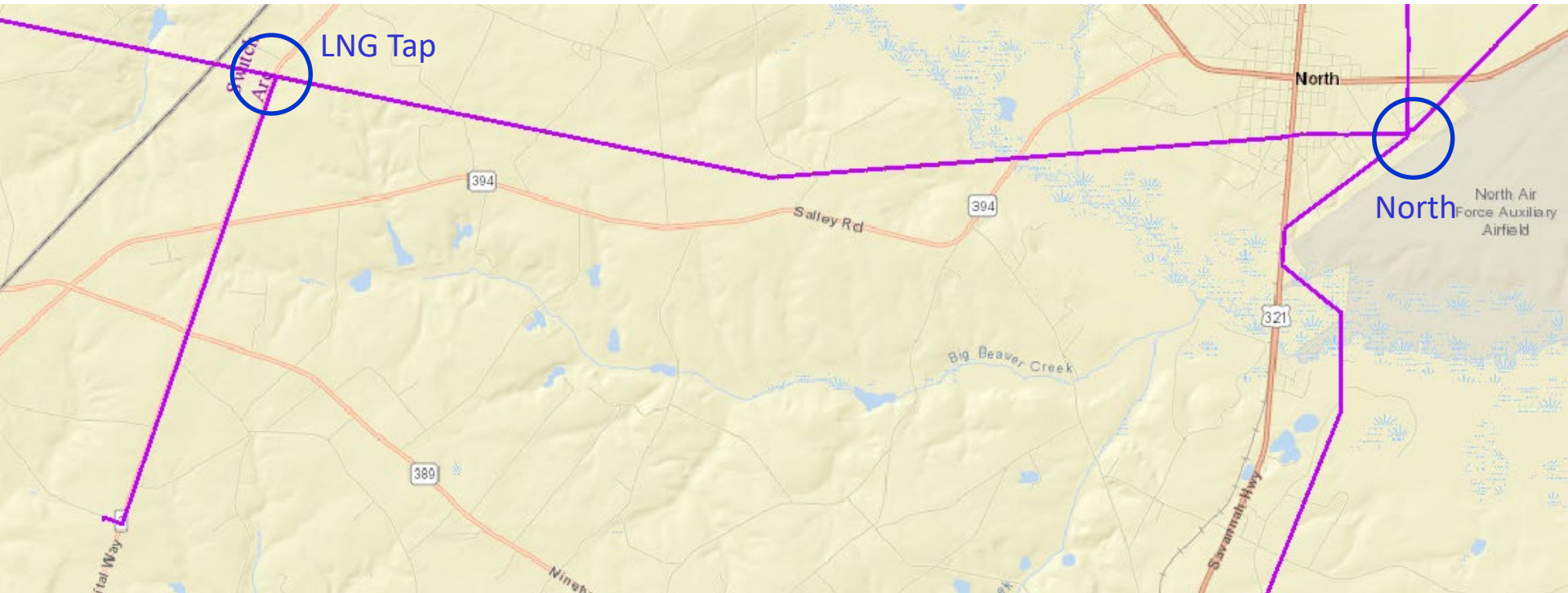
System hardening

Project Status

Planned

Planned In-Service Date

December 2022



Wagener Jct – Springfield City 46kV: Rebuild

Project Description

Rebuilding the existing 46kV line from Wagener Junction to Springfield City SPSC with 1272ACSR conductor and 115kV Insulation (line will continue to operate at 46kV).

Project Need

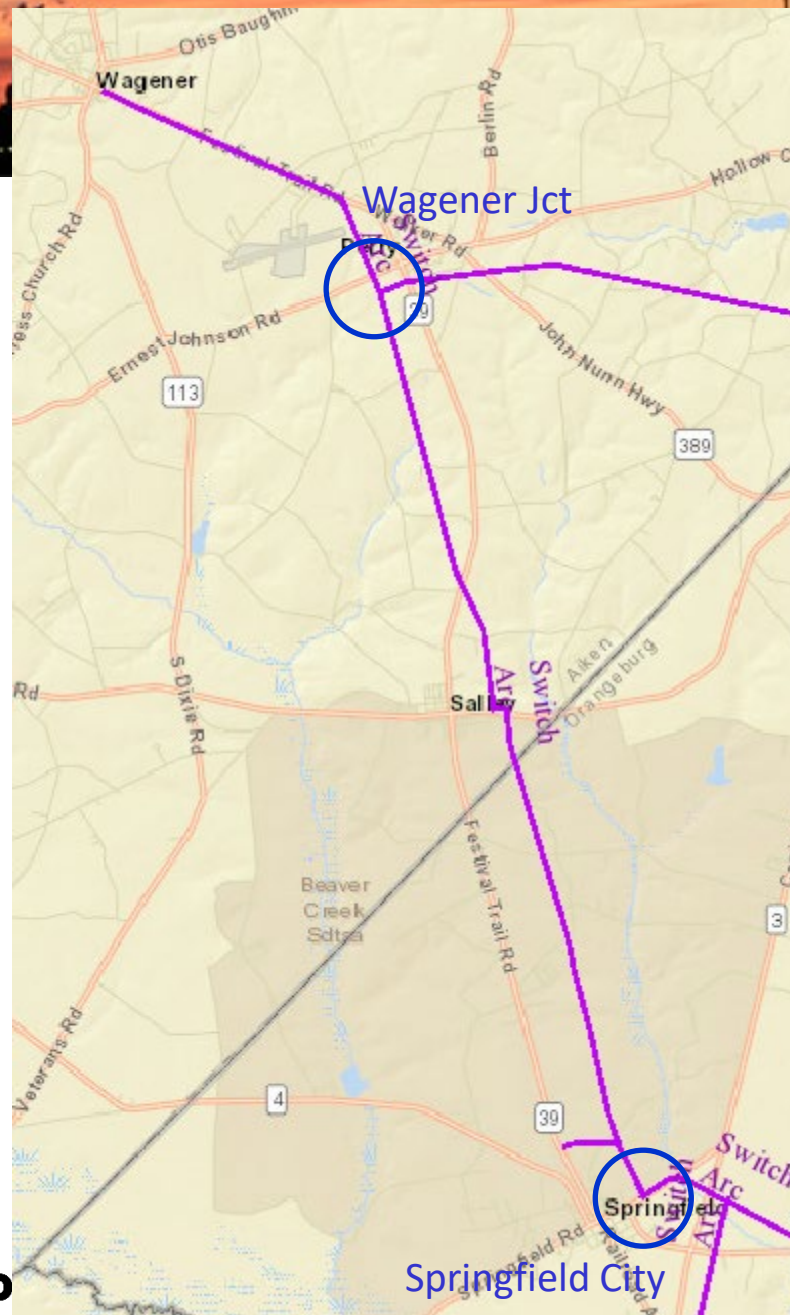
System hardening

Project Status

Planned

Planned In-Service Date

December 2022



DESC

2023 - 2027

Planned Transmission Facilities

Burton – St Helena 115kV: Rebuild Burton – Frogmore Transmission Section and Frogmore Distribution – St. Helena

Project Description

Replace the structures on the Burton to Frogmore Transmission and Frogmore Distribution to St Helena sections of 115kV line with Galvanized Steel Monopoles.

Project Need

The existing structures have reached the end of their useable life. In addition, the conductor on the Burton – Frogmore Transmission section will be replaced with 1272 ACSR as it has also reached its end of life.

Project Status

Planned

Planned In-Service Date

December 2023



VCS1 – Denny Terrace 230kV & VCS1 – Pineland 230kV: Rebuild Double Circuit Section and Single Circuit Sections

Project Description

Rebuild the structures and conductor on the VCS1 – Denny Terrace 230kV line and the VCS1 – Pineland 230kV line.

Project Need

The wooden H-Frame structures for both lines as well as the conductors have reached the end of their life. The structures will be replaced with Self Supporting Steel Poles and the conductor will be replaced with 1272 ACSR.

Project Status

Planned

Planned In-Service Date

December 2023



Okatie – Bluffton 115kV: Rebuild

Project Description

Replace the Okatie – Bluffton 115kV Line.

Project Need

The existing structures and 795 ACSR conductor on the 18.65 mile long line have reached the end of useable life. In addition to changing out the wooden structures with Self Supporting Steel Poles, the conductor will be replaced and upgraded with 1272 ACSR conductor.

Project Status

Planned

Planned In-Service Date

December 2023

Hopkins – Square D 115kV: Rebuild

Project Description

Replace the Hopkins – Square D 115kV structures and line.

Project Need

The existing wooden structures and 477 ACSR conductor on the 4.4 mile-long Hopkins – Square D 115kV Line have reached the end of useable life. In addition to changing out the wooden structures with Self Supporting Steel Poles, the conductor will be replaced with 1272 ACSR conductor.

Project Status

Planned

Planned In-Service Date

December 2023

Coit – Gills Creek 115kV Line: Construct

Project Description

Convert the current 33kV line from the Coit substation to the Gills Creek substation to 115kV.

Project Need

System growth in the Eastern Columbia and Garners Ferry areas requires additional 115kV capacity and transmission path to increase reliability.

Project Status

Planned

Planned In-Service Date

December 2024

Cainhoy – Hamlin 115kV: Rebuild Line and Cainhoy – Hamlin 115kV #2: Construct new 115kV Line

Project Description

Rebuild the existing Cainhoy – Hamlin 115kV line with bundled 795 ACSR conductor and steel poles. Build an additional Cainhoy – Hamlin line to the same specifications and in the same right of way.

Project Need

This project is required for system reliability and maintainability.

Project Status

Planned

Planned In-Service Date

December 2024

Union Pier 115 – 13.8kV Sub : Tap Construct

Project Description

Construct a 115-13.8kv substation approximately 0.7 mile South of Charlotte Street Substation near Bay Street.

Project Need

Load growth in the Charleston area requires additional transmission capacity.

Project Status

Planned

Planned In-Service Date

December 2024

Faber Place – Bayfront 115kV: Rebuild North Bridge Terrace to Bayfront Section

Project Description

Replace the Faber Place - Bayfront 115kV wooden T-1 structures with Self Supporting Steel Structures.

Project Need

The structures are at the end of their useable life. The existing 477 ACSR conductor on the line has also reached its end of life and will be replaced with 1272 ACSR.

Project Status

Planned

Planned In-Service Date

December 2024

Edenwood Sub: #1 & #2 230-115kV Autobanks

Project Description

Replace the #1 and #2 230kV to 115kV autobanks at the Edenwood Sub with 336MVA transformers.

Project Need

The autobanks are nearing the end of their useable life.

Project Status

Planned

Planned In-Service Date

December 2024

Okatie – Riverport 230kV Construct

Project Description

Construct a 230kV substation called Riverport and a 230kV line from Okatie to Riverport. A 115kV line from Okatie – Hardeeville will also be built.

Project Need

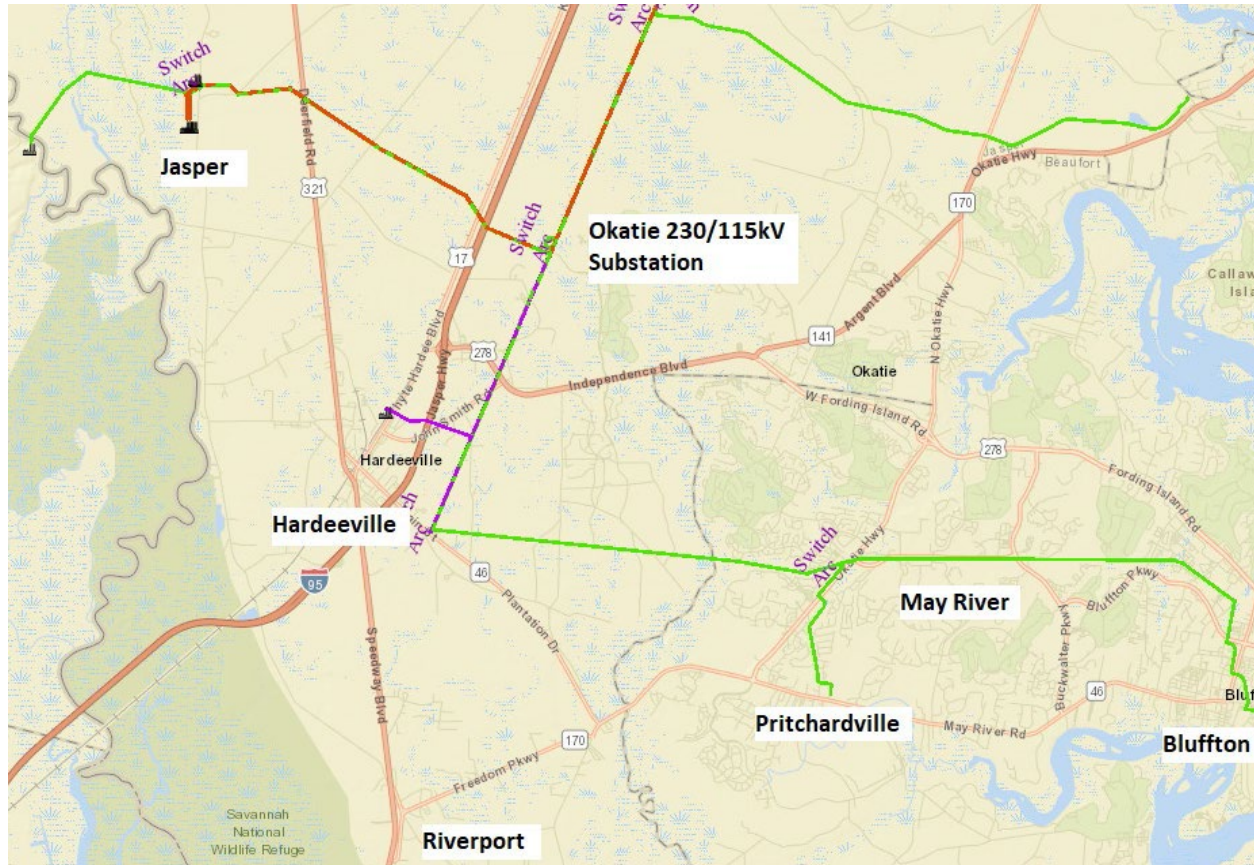
Load growth in the area requires additional transmission capacity.

Project Status

Planned

Planned In-Service Date

December 2024



Jasper – Okatie 230kV #2: Construct

Project Description

Construct a new 230kV line with B-1272 ACSR from Jasper to the Okatie 230/115kV Substation. The line will be called Jasper – Okatie 230kV #2.

Project Need

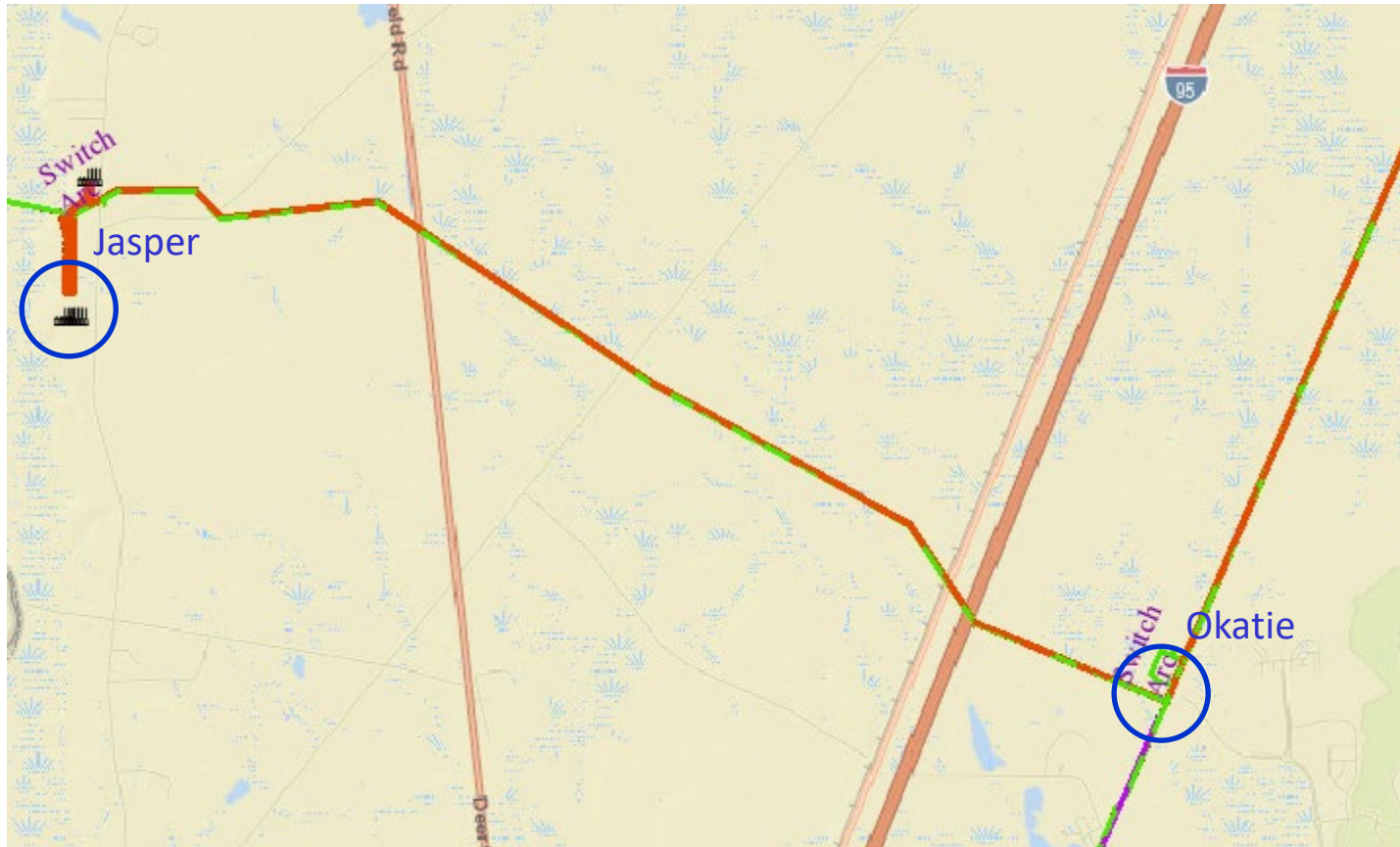
System Hardening

Project Status

Planned

Planned In-Service Date

December 2024



Canadys – Ritter 115kV: Rebuild as 230/115kV Double Circuit

Project Description

Rebuild the Canadys – Ritter 115kV line as SPDC with 230kV on one side and 115kV on the other (approximately 17.8 miles). The 230kV side will be built B-1272 ACSR and the 115kV side will be built 1272 ACSR.

Project Need

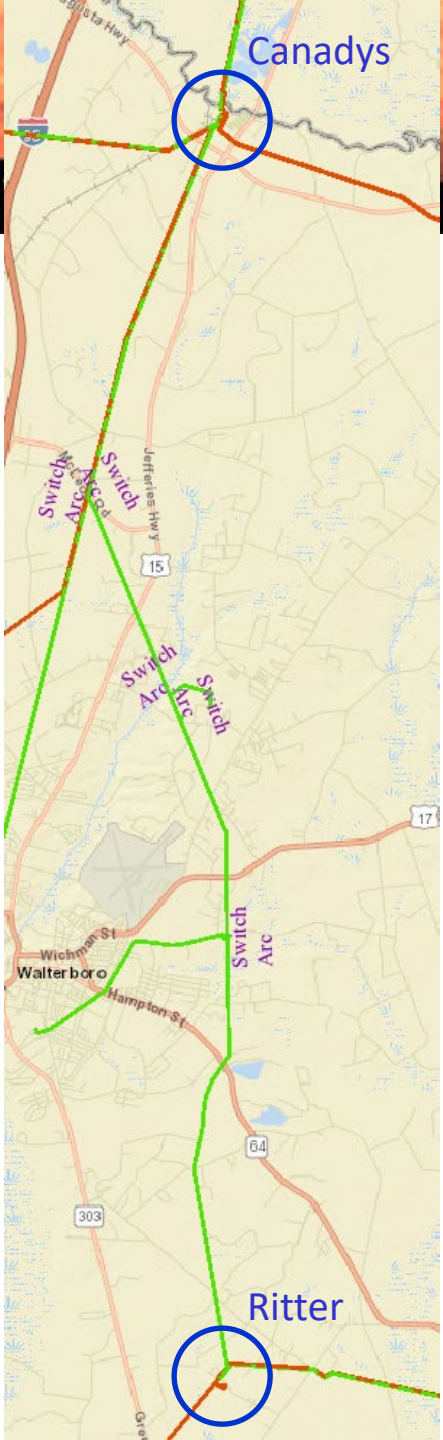
This project is required for system reliability and maintainability.

Project Status

Planned

Planned In-Service Date

June 2026



Okatie 230-115kV Sub and the Jasper – Yemassee Fold In

Project Description

Expand the Okatie transmission switching station by adding two 230kV line terminals and a 230-115kV autotransformer, and fold in the Jasper – Yemassee 230kV #1 line.

Project Need

This project is required for system reliability and maintainability.

Project Status

Planned

Planned In-Service Date

December 2026

Ritter – Yemassee 230kV and 115kV Transmission System Expansion

Project Description

Construct Ritter – Yemassee 230kV #1 and #2 SPDC with B1272 ACSR on both sides, and convert the existing Ritter – Yemassee 230kV to 115kV operation, re-terminating it to new 115kV terminals at Ritter and Yemassee.

Project Need

This project is needed to enhance system reliability, improve power flow, and mitigate potential overloads in the Yemassee, SC area by adding additional 230kV and 115kV paths for electrical power to flow out of the Yemassee substation.

Project Status

Planned

Planned In-Service Date

June 2027

Clements Ferry 115-23kV Sub: Construct; Jack Primus – Cainhoy 115kV with Clements Ferry Tap Construct

Project Description

Construct a 115-23kV substation. New 115kV terminals will be constructed at Jack Primus and Cainhoy. The Cainhoy – Jack Primus 115kV line will have a fold in at the new Clements Ferry 115kV substation.

Project Need

To serve future load in the area.

Project Status

Planned

Planned In-Service Date

December 2027



Questions?

Santee Cooper Major Transmission Expansion Plans

Weijian Cong

Transmission Projects 2022-2026



Project Title	In-service Date
JW Aluminum Phase II: Rebuild N. Charleston-Goose Creek 115 kV Line Section	03/31/2022
Red Hill 115 kV Delivery Point	06/01/2022
Aiken 230-115 kV Transformer #2 Addition	11/01/2022
Yemassee 230 kV Station Improvements	12/01/2022
Mateeba 230 kV Station Improvements	12/01/2022
Tillman 115 kV Delivery Point	12/01/2022
Johns Island – Queensboro (DESC) 115 kV Line	12/31/2022
Camp Hall North Loop 115 kV Line	03/31/2023
Wassamassaw 230-115 kV Substation	12/01/2023
Wassamassaw-Pringleton #2 115 kV Line	12/01/2023
Conway 230 kV Switching Station	09/01/2024
Marion-Conway 230 kV Line	09/01/2024
Replace Limiting Elements on the Perry Rd – Carolina Forest 115 kV Line	12/01/2024
Kingstree 230 kV Series Bus Tie Breaker	12/01/2024
Clearpond 115-12 kV Substation	09/01/2025
Conway - Perry Road 230 kV Line	12/01/2025
Pawleys Island 115-12 kV Sub: Add 115-12 kV Trans. and 12 kV Feeders	09/01/2026
Carolina Forest 230-115 kV Transformer #1 Addition	12/01/2026
Cross - Kingstree #1 and #2 Breaker and Switch Replacement	12/01/2026

John's Island (SC)-Queensboro (DESC) 115 kV Line

Project Description

Construct a new 115 kV transmission line using 1272 ACSR conductor, approximately 6 miles in length, from the Johns Island 230-115 kV Substation to a mutually agreed upon location on Johns Island. Construct a new 115 kV line terminal at Johns Island 230-115 kV Substation.

Project Need

This new interconnection will provide an additional transmission source to Johns Island, which will mitigate contingency conditions that could result in significant load loss, thus increasing transmission reliability to the Johns Island area.

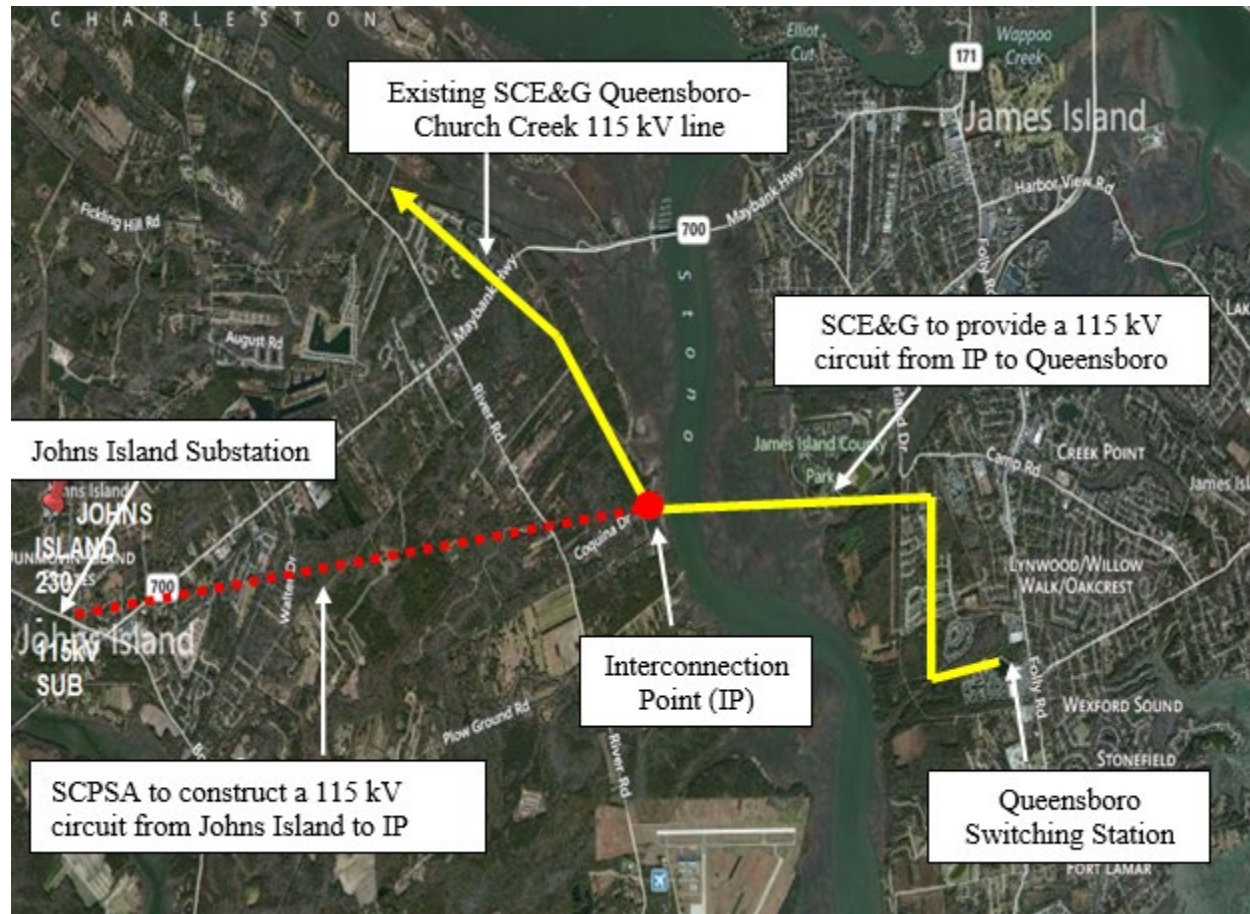
Project Status

In Progress

Planned In-Service Date

December 2022

John's Island (SC)-Queensboro (DESC) 115 kV Line



Aiken 230-115 kV Transformer Addition

Project Description

At the Aiken 230-115 kV Substation, extend the 115 kV bus and install a 115 kV bus tie breaker and a second 230-115 kV transformer rated for 90/120/150//180 MVA .

Project Need

Studies indicate thermal loading issues on the Aiken 230-115kV transformer under contingency conditions. The addition of a second 230-115 kV transformer at the Aiken 230-115 kV Substation is expected to alleviate these thermal loading concerns.

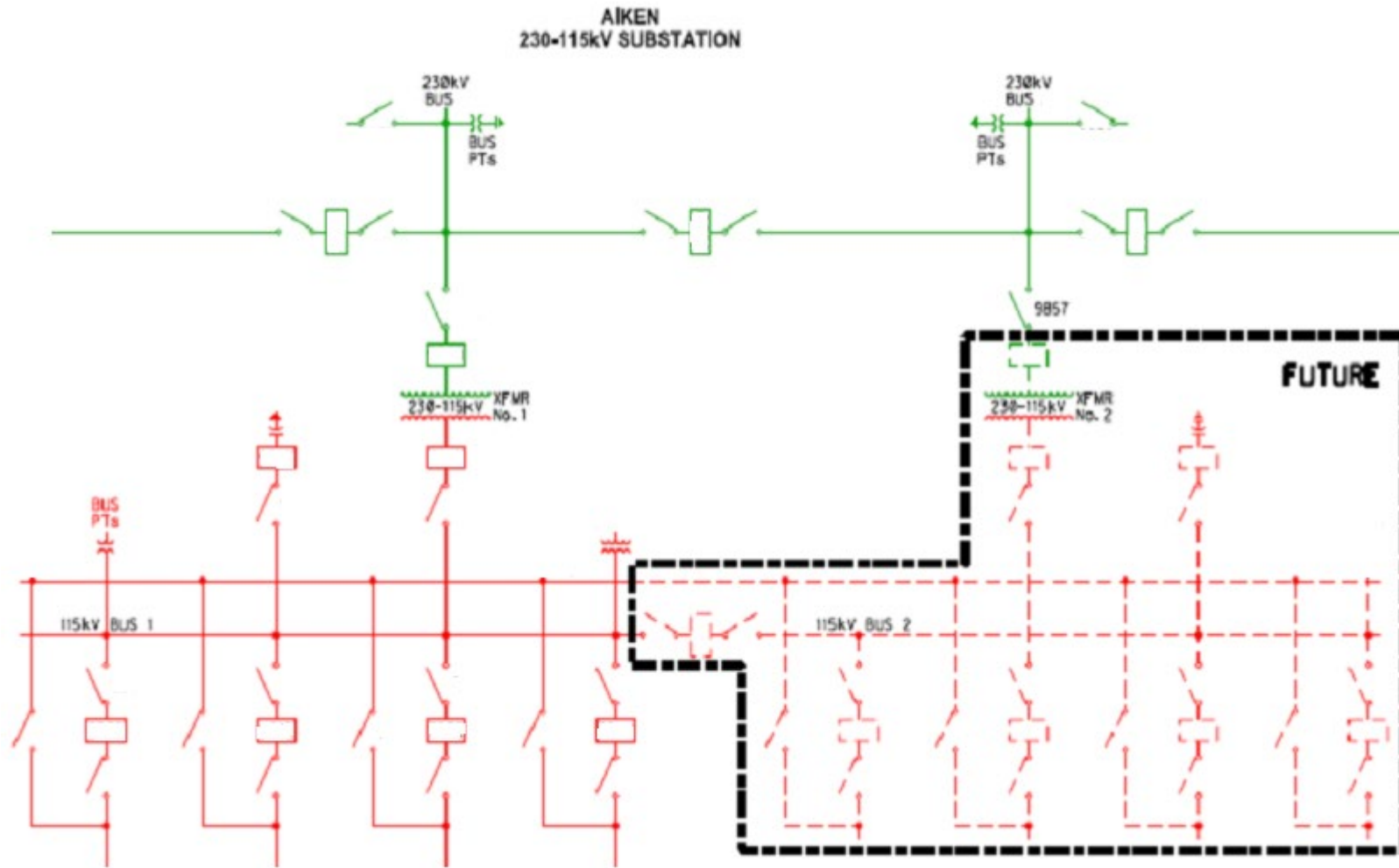
Project Status

In progress

Planned In-Service Date

November 2022

Aiken 230-115 kV Transformer Addition 11/2022



Yemassee Station Improvements

Project Description

Upgrade 230 kV bus and selected 230 kV disconnect switches to a minimum of 3000 Amperes continuous operation. These bus and equipment upgrades will increase the ratings of transmission lines.

Project Need

Studies indicate that thermal loading may occur on the DESC Yemassee tie line under contingency conditions. Studies also indicate that this tie line may limit the power transfer capability. Increasing the rating of this facility can increase the transfer capability and mitigate thermal loading concerns.

Project Status

In progress

Planned In-Service Date

December 2022

Mateeba Station Improvements

Project Description

Upgrade 230 kV bus and selected 230 kV disconnect switches and power circuit breaker to a minimum of 3000 Amperes continuous operation. These bus and equipment upgrades will increase the ratings of transmission lines.

Project Need

Studies indicate that the Yemassee-Mateeba 230 kV line may limit the power transfer capability under contingency conditions. Increasing the rating of this facility can increase the transfer capability.

Project Status

In progress

Planned In-Service Date

December 2022

Wassamassaw 230-115kV Substation

Project Description

Fold in the existing Carnes-Cross 230 kV line and Jefferies-Harleyville 115 kV line into the new Wassamassaw 230-115kV Substation with the addition of two 230-115 kV transformers. Additional line terminal(s) and capacitor bank will be added as part of the initial requirements.

Project Need

Additional support is required for load growth in the Dorchester and Berkeley County area. This project is necessary to mitigate thermal loading issues under contingency conditions. The Wassamassaw 230-115kV Substation will be configured such that additional facilities can be added to provide support for continued load growth in the area.

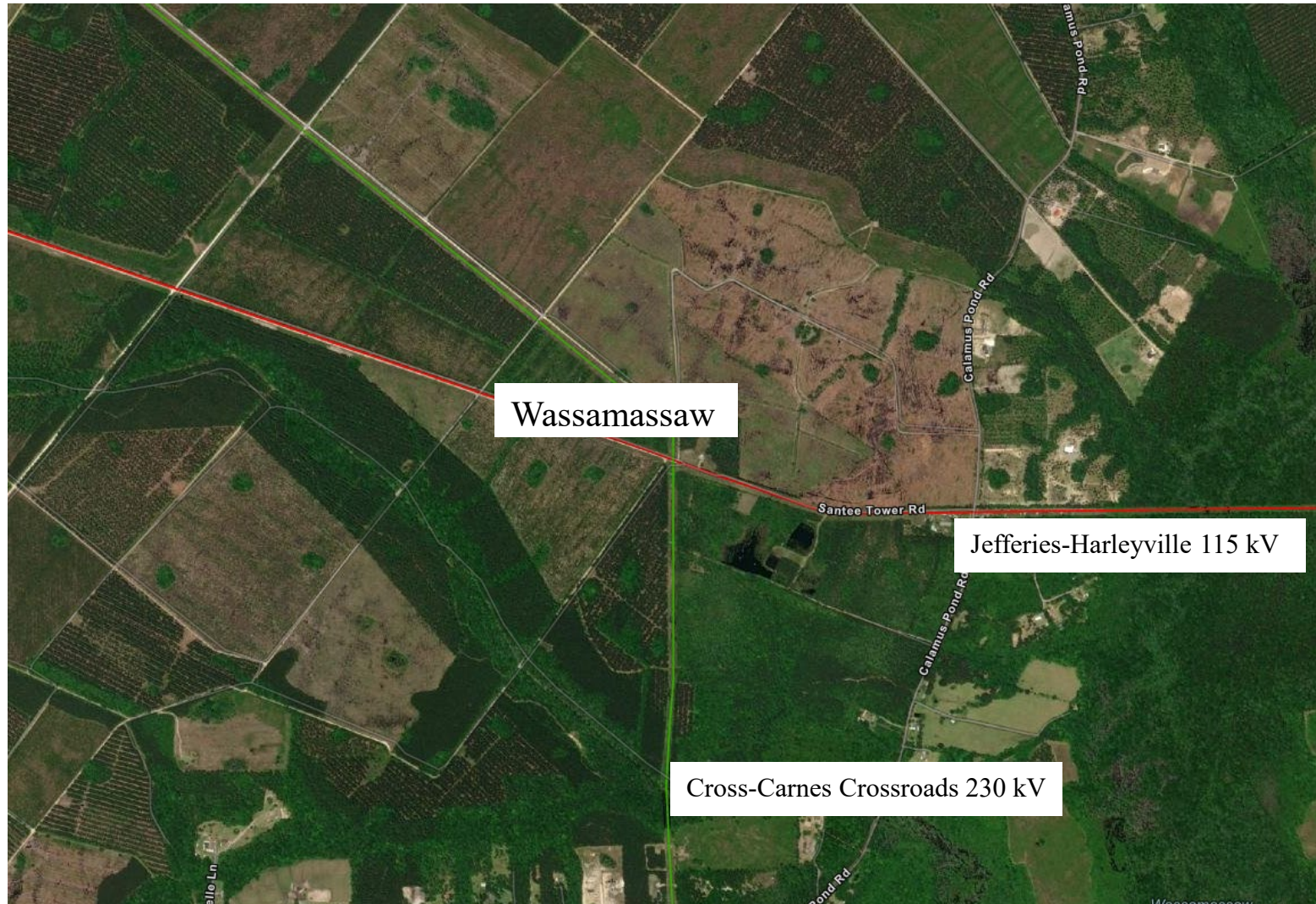
Project Status

In progress

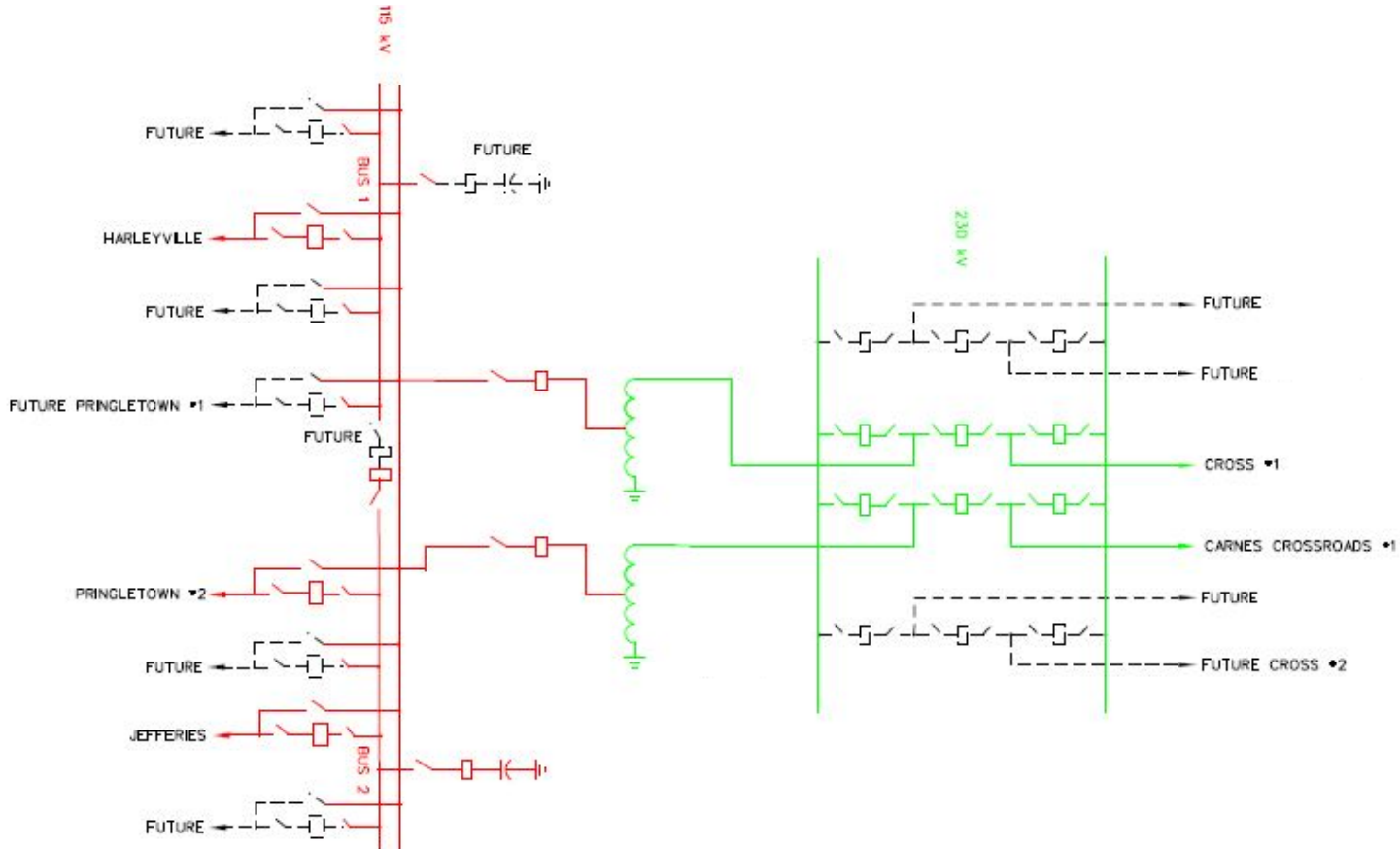
Planned In-Service Date

December 2023

Wassamassaw 230-115 kV Substation



Wassamassaw 230-115 kV Substation



Wassamassaw – Pringetown 115 kV line #2

Project Description

Construct a new 115 kV transmission line, approximately 7 miles in length, from the Wassamassaw 230-115 kV Substation to the Pringletown 115 kV Switching Station using 1272 ACSR 45/7 conductor rated for 1200 Ampere continuous operation.

Project Need

In addition to the proposed Wassamassaw 230-115 kV substation, this 115 kV line will provide additional load serving capability for the anticipated load growth in the Camp Hall Commerce Park area.

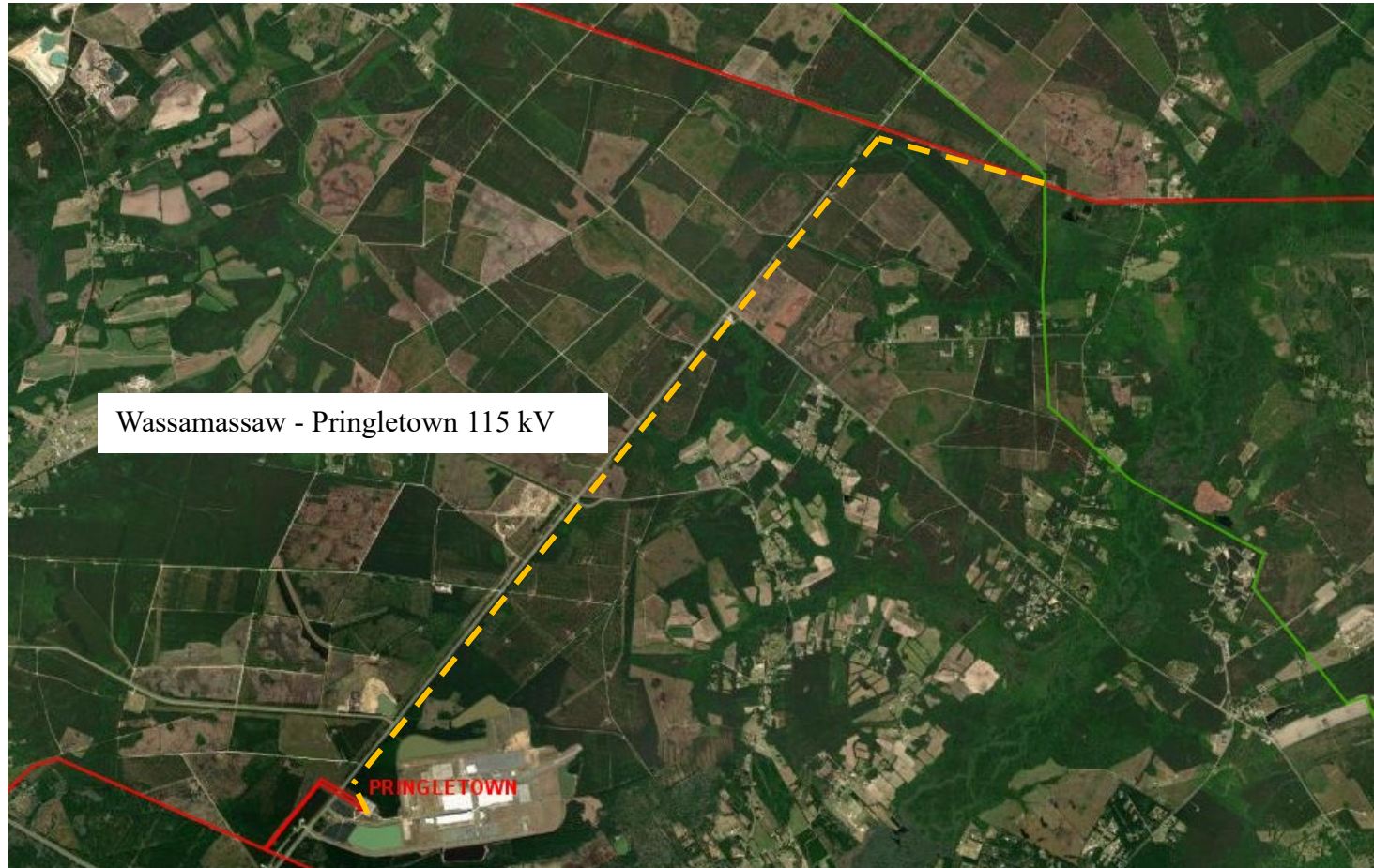
Project Status

In progress

Planned In-Service Date

December 2023

Wassamassaw – Pringletown 115 kV



Conway 230 kV Switching Station and Marion-Conway 230 kV Line

Project Description

Fold the Hemingway-Red Bluff 230 kV Line into the new Conway 230 kV Switching Station. Construct a 230 kV line approximately 34 miles in length from the Marion 230-115-69kV Substation to the Conway 230 kV Switching Station. Rebuild the existing Marion-Conway 115 kV Line for 230/115 kV double-circuit using bundled 1272 ACSR for the 230 kV line and single 795 ACSR for the 115 kV line.

Project Need

Studies indicate thermal loading and voltage violations under contingency conditions in the Horry-Georgetown area that are mitigated by the additional support that the Marion-Conway 230 kV Line provides. The new Conway Switching Station will also enable additional 230 kV network expansion in the area.

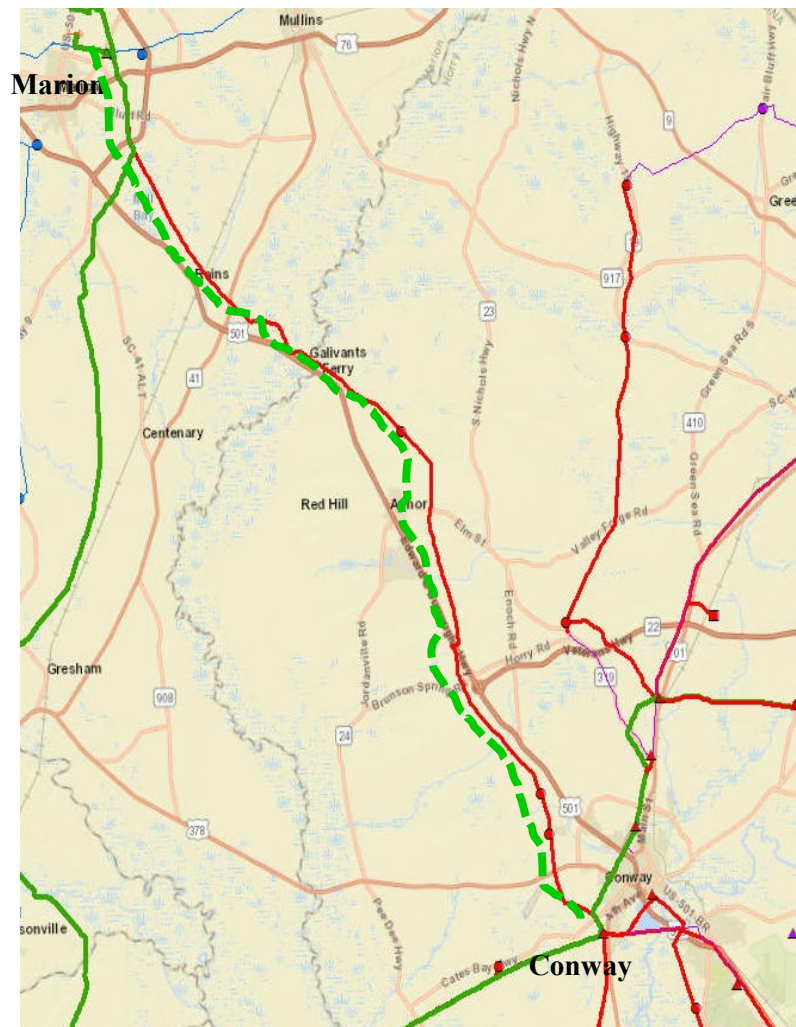
Project Status

In Progress

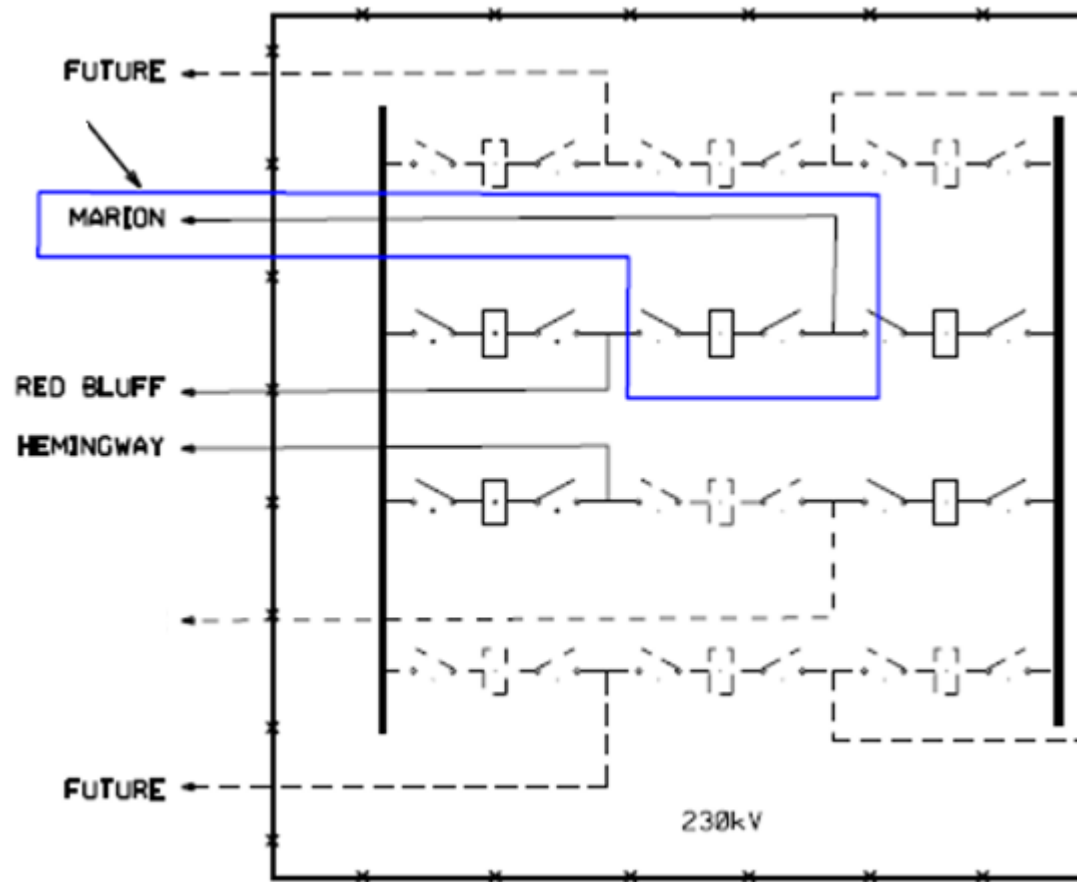
Planned In-Service Date

September 2024

Conway 230 kV Switching Station Marion-Conway 230 kV line



Conway 230 kV Switching Station



Kingstree 230 kV Series Bus Tie Breakers

Project Description

Reconfigure the Kingstree 230 kV Switching Station as required to install a second 230 kV Bus Tie Breaker in series with the existing 230 kV Bus Tie Breaker. Install redundant bus differential protection relays.

Project Need

The intent of this project is to mitigate thermal loading and voltage violations in multiple regions of the transmission system by eliminating a specific contingency that would result in loss of all 230 kV facilities at this station.

Project Status

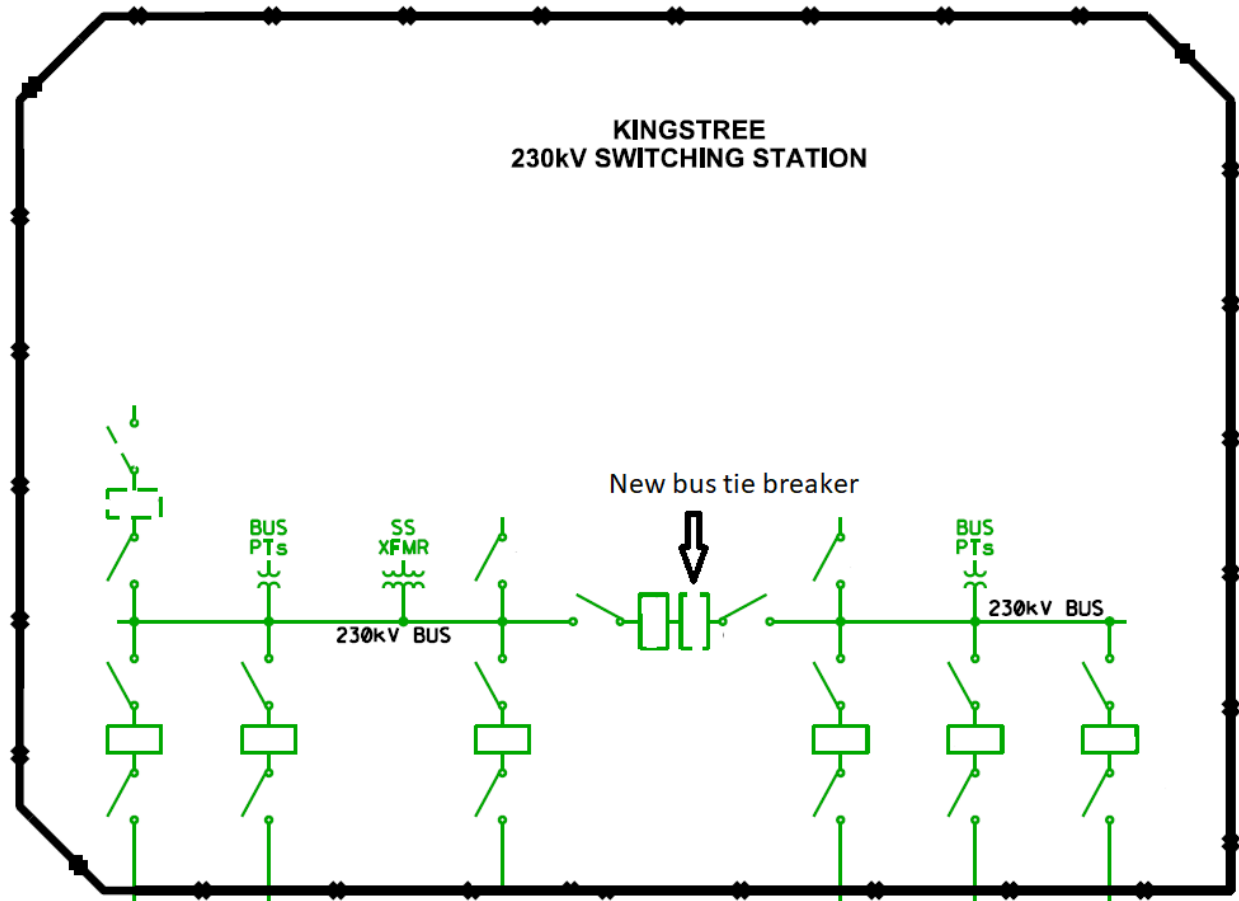
Planned

Planned In-Service Date

December 2024



Kingstree 230 kV Series Bus Tie Breakers



Conway – Perry Road 230 kV Line

Project Description

Construct a new 230 kV line between the Conway 230 kV Switching Station and the Perry Road 230-115 kV Substation using bundled 1272 ACSR conductor.

Project Need

The Conway – Perry Rd 230 kV Line will provide an additional path into the load center in the Myrtle Beach area and alleviate thermal loading under contingency conditions.

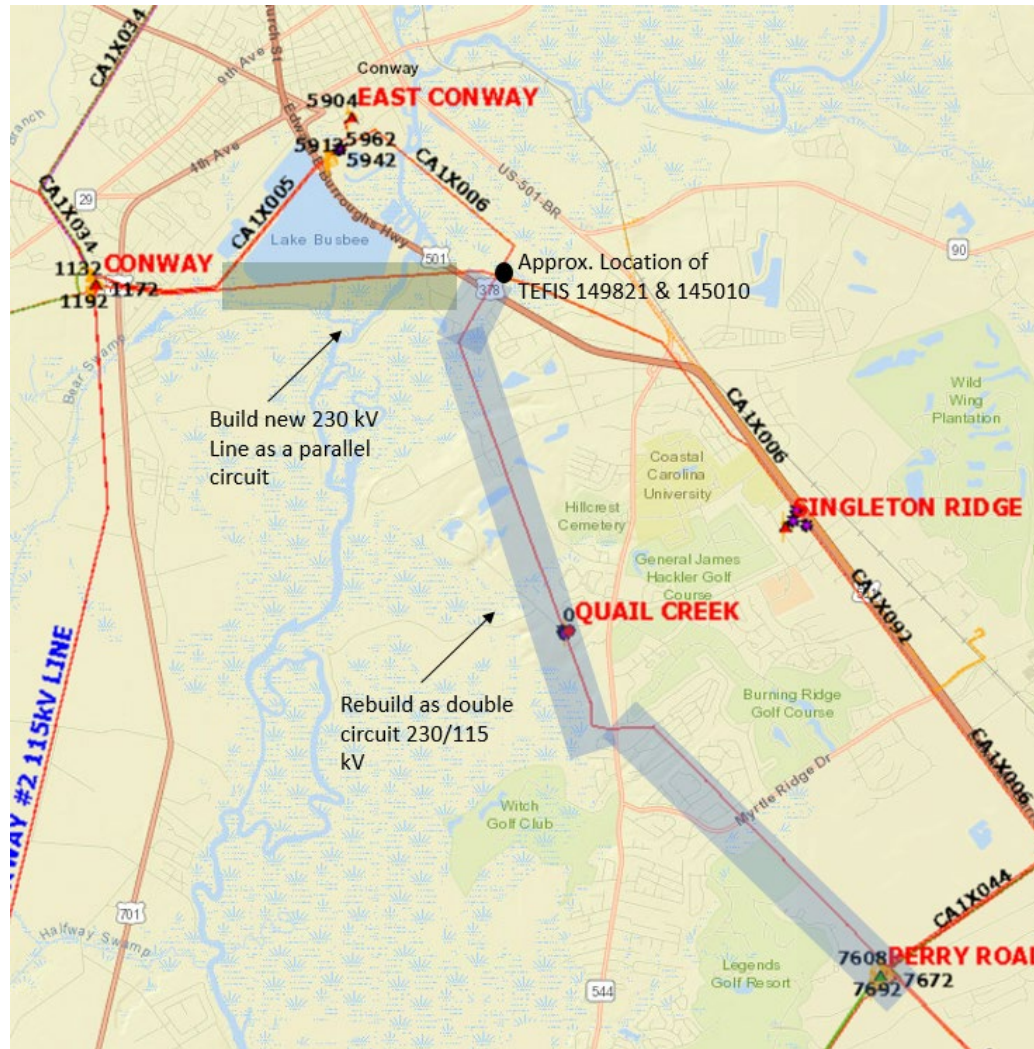
Project Status

Planned

Planned In-Service Date

December 2025

Conway – Perry Road 230 kV line



Carolina Forest 230-115 kV Transformer #1 Addition

Project Description

Extend the existing 230 kV bus at Carolina Forest 230-115kV Substation to install a second 230-115 kV transformer to operate in parallel to the existing transformer.

Project Need

Additional transformer at this substation will provide additional transformer capacity required to serve this area and alleviate thermal loading concerns on the existing transformer at this location under contingency conditions.

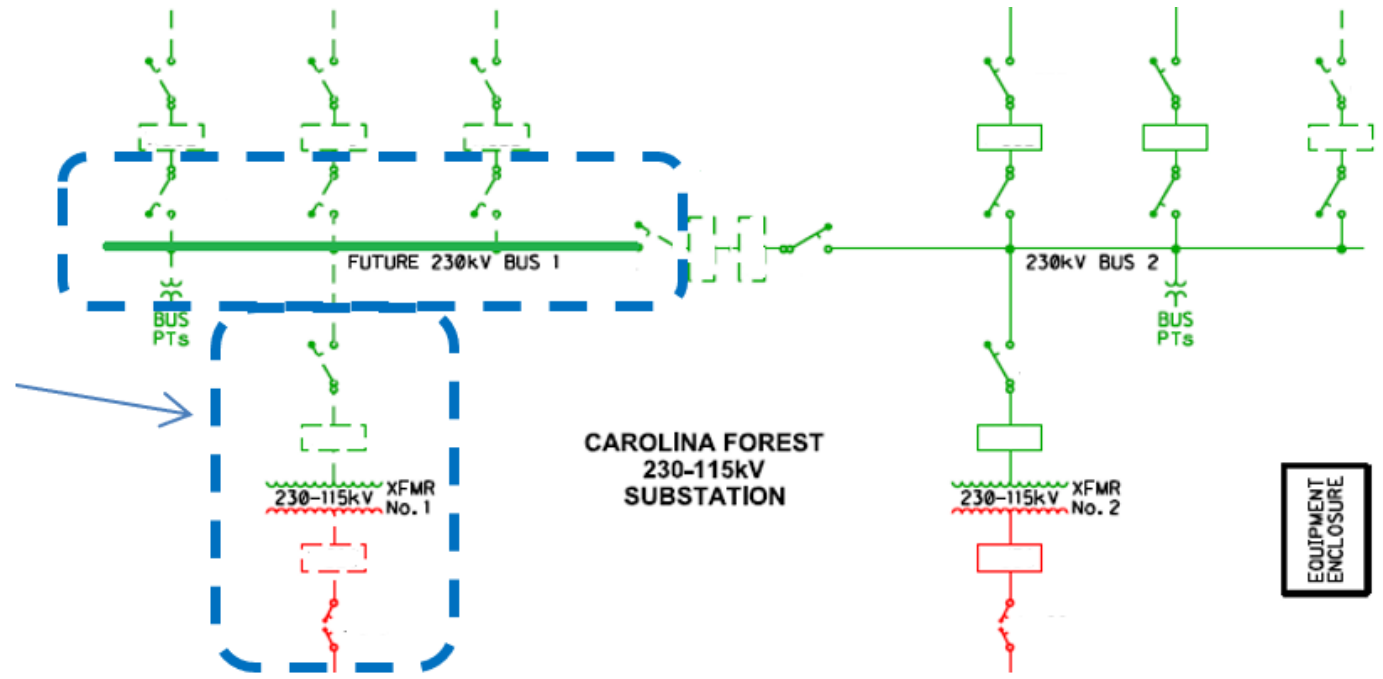
Project Status

Planned

Planned In-Service Date

December 2026

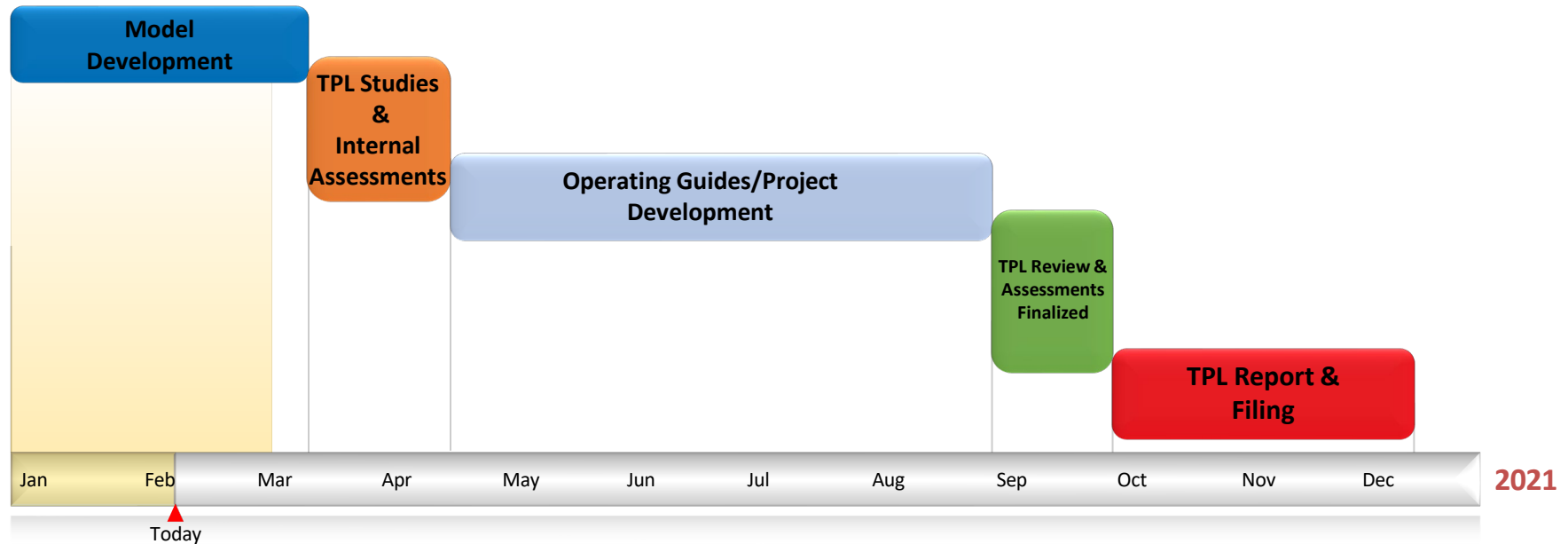
Carolina Forest Transformer Addition



Santee Cooper Transmission Expansion Plans

Questions?

Reliability Transmission Planning Studies Timeline



Next SCRTP Meeting

- Stakeholders will select up to 5 Economic Transmission Planning Studies
- Request Form will be posted on SCRTP website
- Review and discuss Multi-Party Assessment Studies
- SCRTP Email Distribution List will be notified
- Register online

South Carolina Regional Transmission Planning

Stakeholder Meeting

Teams

February 23, 2022